A CATALYST SYSTEM FOR THE REDUCTION OF NOx AND NH_3 EMISSIONS

Abstract of Disclosure

This catalyst system simultaneously removes ammonia and enhances net NOx conversion by placing an NH_3 -SCR catalyst formulation downstream of a lean NOx trap. By doing so, the NH_3 -SCR catalyst adsorbs the ammonia from the upstream lean NOx trap generated during the rich pulses. The stored ammonia then reacts with the NOx emitted from the upstream lean NOx trap – enhancing the net NOx conversion rate significantly, while depleting the stored ammonia. By combining the lean NOx trap with the NH_3 -SCR catalyst, the system allows for the reduction or elimination of NH_3 and NOx slip, reduction in NOx spikes and thus an improved net NOx conversion during lean and rich operation.

Figures